

ABSTRACT

A photocatalytic substance having the properties of an n-type semiconductor is deposited on a surface of a metal base made of a stainless steel or Inconel. When necessary, the hydrogen concentration of the reactor water is increased.

- 5 A current produced by the photocatalytic substance when the same is irradiated with light or radioactive rays in a nuclear reactor flows through the metal base to reduce corrosion current. When necessary, the photocatalytic substance is provided on its surface with at least one of Pt, Rh, Ru and
- 10 Pd.

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